

Listing of the Claims

1-59 (Canceled)

60. (Currently Amended) A medical prosthesis, including:

a prosthesis structure including an interbraiding of a plurality of strands, said strands including elastically and plastically deformable structural strands formed of metal, each structural strand having a nominal shape when in a relaxed state under no external stress and being elastically deformable away from the nominal shape, each structural strand further being adapted to be altered to acquire a selected nominal shape different from an original nominal shape in response to a controlled plastic deformation treatment prior to interbraiding, wherein the structural strands when in their selected nominal shapes form windings having tubular profiles; and

wherein the structural strands are so altered to their selected nominal shapes forming windings having tubular profiles, and further have selected orientations within the prosthesis structure to impart to the prosthesis structure a tubular predetermined nominal configuration corresponding to said tubular profiles;

wherein the strands of said interbraiding further include a plurality of textile strands more compliant than the structural strands, interbraided with the structural strands, supported by the structural strands, occupying interstices between adjacent structural strands, and cooperating to form a textile sheeting; and

wherein said textile strands are multifilament yarns formed of a material selected from the group consisting of: PET, polypropylene, polyurethane, polycarbonate urethane, HDPE, polyethylene, silicone, PTFE, ePTFE, and polyolefin.

61. (Cancelled)

62. (Previously Presented) The prosthesis of claim 60 wherein:
the selected nominal strand shape of each structural strand is helical.

63. (Previously Presented) The prosthesis of claim 60 wherein:
the structural strands cooperate to form a latticework including first and second sets of helices running in respective first and second opposite directions.

64. (Previously Presented) The prosthesis of claim 60 wherein:
said structural strands are formed of a metal selected from the group consisting of: stainless steel, an alloy including cobalt, and an alloy including titanium.

65. (Previously Presented) The prosthesis of claim 64 wherein:
the structural strands are formed of a cobalt-chromium-molybdenum alloy.

66. (Previously Presented) The prosthesis of claim 60 wherein:
the structural strands are monofilaments.

67. (Cancelled)

68. (Currently Amended) The prosthesis of claim ~~64~~ 60 wherein:
said interbraiding of the structural strands and the compliant textile strands consists essentially of a single layer.

69. (Currently Amended) An implantable device, including:
a prosthesis structure including an interbraiding of a plurality of strands, said strands including elastically and plastically deformable structural strands formed of metal, each structural strand having a nominal shape when in a relaxed state under no external stress and being elastically deformable away from the nominal shape, each structural strand further being adapted to be altered, in response to an application of a force exceeding a yield stress of the structural strand, to acquire a selected curved nominal shape different from an original linear nominal shape in response to a controlled plastic deformation treatment prior to interbraiding, wherein the structural strands when in their selected curved nominal shapes form windings having tubular profiles; and

wherein the structural strands within said interbraiding to their selected nominal shapes forming windings having tubular profiles, further are oriented selectively to impart to the

prosthesis structure a tubular predetermined nominal configuration corresponding to said tubular profiles;

wherein the strands of said interbraiding further include a plurality of textile strands more compliant than the structural strands, interbraided with the structural strands, supported by the structural strands, occupying interstices between adjacent structural strands, and cooperating to form a textile sheeting; and

wherein said textile strands are multifilament yarns formed of a material selected from the group consisting of: PET, polypropylene, polyurethane, polycarbonate urethane, HDPE, polyethylene, silicone, PTFE, ePTFE, and polyolefin.

70. (Cancelled)

71. (Previously Presented) The prosthesis of claim 69 wherein:
the selected nominal strand shape of each structural strand is helical.

72. (Previously Presented) The prosthesis of claim 69 wherein:
the structural strands cooperate to form a latticework including first and second sets of helices running in respective first and second opposite directions.

73. (Previously Presented) The prosthesis of claim 69 wherein:
said structural strands are formed of a metal selected from the group consisting of:
stainless steel, an alloy including cobalt, and an alloy including titanium.

74. (Previously Presented) The prosthesis of claim 73 wherein:
the structural strands are formed of a cobalt-chromium-molybdenum alloy.

75. (Previously Presented) The prosthesis of claim 69 wherein:
the structural strands are monofilaments.

76. (Cancelled)

77. (Currently Amended) The prosthesis of claim ~~70~~ 69 wherein:
said interbraiding of the structural strands and the compliant textile strands consists
essentially of a single layer.